

ABSTRACT OF THE DISCLOSURE

A directory-enabled network element is disclosed. In one embodiment, a router, switch, or other network device has a directory enabling element that is configured to query, access, and update directory information that is managed by a directory service of a network that includes
5 the network element. An application programming interface is configured to receive directory services requests from application programs and provide the directory services requests to the directory enabling element. A locator service is accessible using the application programming interface and configured to locate servers that provide the directory services in the network.

A bind service in the directory enabling element is coupled to a security protocol and
10 configured to bind an external application program to the security protocol. An event service is configured to receive registration of an event and an associated responsive action from an application program, notify the application program when the event occurs, and execute the associated responsive action in response thereto. As a result, a router, switch, or other network device can automatically authenticate itself to a directory service and query, access
15 and update information in any directory server of a distributed network.